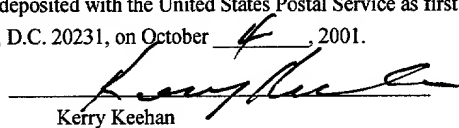




PATENT  
Docket No. 427922000920

**CERTIFICATE OF MAILING BY "FIRST CLASS MAIL"**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:  
Assistant Commissioner for Patents, Washington, D.C. 20231, on October 4, 2001.

  
Kerry Keehan

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the application of:

Mingqi ZHAO et al.

Serial No.: 09/939,327

Filing Date: August 24, 2001

For: MICROFLUIDIC CHIP HAVING  
INTEGRATED ELECTRODES

Examiner: To Be Assigned

Group Art Unit: To Be Assigned

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Prior to examination of the above-identified application, please enter the following  
amendments.

## AMENDMENTS

Please amend Claim 1 as follows:

1. (AMENDED) A microfluidic device comprising:

a substrate having at least one channel and at least one aperture in fluid communication with said channel;

a cover bonded to said substrate such that a reservoir is formed at said at least one aperture; and

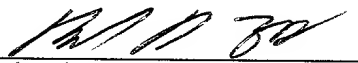
an electrically conducting ink pattern on at least one of said substrate and cover such that when a material is present in said channel and reservoir said ink pattern makes electrical contact with said material.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 427922000920. However,

the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: October 4, 2001

Respectfully submitted,

By:   
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Attachment of Amended Claims Showing Changes

TO: 09/27/01 09:56:50

## ATTACHMENT OF AMENDED CLAIMS SHOWING CHANGES

1. (AMENDED) A microfluidic device comprising:

a substrate having at least one channel and at least one [an] aperture in fluid communication with said channel;

a cover bonded to said substrate such that a reservoir is formed at said at least one aperture; and

an electrically conducting ink pattern on at least one of said substrate and cover such that when a material is present in said channel and reservoir said ink pattern makes electrical contact with said material.